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A NEW SPECIES OF THE GENUS *LIOPHLOEOTHrips* (THYSANOPTERA, PHLAEOTHripIDAE) FROM IRAN

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A New Species of the Genus *Liophloeothrips* (Thysanoptera, Phlaeothripidae) from Iran. Mirab-balou, M. — *Liophloeothrips baharae* sp. n. is described based on the holotype female collected on dead branches under oak trees in Zagros forests from Ilam province, western Iran. It is related to *L. reperticus* Ananthakrishnan and Muraleedharan, 1974 from India.

Key words: Thysanoptera, Phlaeothripinae, *Liophloeothrips*, *Gynaikothrips*, Iran.

Introduction

The genus *Liophloeothrips* Priesner, 1919 is one of the taxa of the *Liothrips*-lineage and known by 16 species globally (Minaei and Mound, 2014), of which three species, i. e., *L. glaber* Priesner, *L. hungaricus* (Priesner) and *L. pulchrisetis* Bournier from Europe and 13 species from India (Tyagi & Kumar, 2011). A checklist and key is now available for the identification of Indian species by Tyagi & Kumar (2011). *Liophloeothrips* is very close to *Gynaikothrips* because of the presence of tooth on fore tarsus in both sexes, but it can be distinguished by the expanded apically S1 and S2 setae on tergite IX in both sexes, mouthcone broadly rounded to narrowly pointed, mesopraesternum either complete, constricted at middle or divided into 2 lateral triangles, and the tube shorter than the head. And from *Liothrips* by the presence of the tooth on fore tarsus in both sexes, and expanded apically S1 and S2 setae on tergite IX (Tyagi & Kumar, 2011).

Liophloeothrips hungaricus (Priesner, 1924) was previously recorded from Iran (Bhatti et al., 2009), and here, the second species *L. baharae* sp. n. is described and illustrated.

Material and methods

Specimens collected on dead branches under oak trees in Manesht Mountains (Ilam Province), west of Iran. Thrips specimens were extracted by using Berlese funnel and remounted on slides using Canada balsam. Type specimens are deposited at Department of Plant Protection, College of Agriculture, Ilam University, Iran (ILAMU).

Liophloeothrips Priesner, 1911

Diagnosis. Head longer than broad; postocular setae well developed, with apices expanded. Antenna 8-segmented, segment III with one outer sense cone but never with an inner sense cone, IV with one inner and one or two outer sense cones, VIII usually non-pedicellate. Mouthcone narrowly pointed. Maxillary stylets retracted far into the head, maxillary bridge absent. Pronotum weakly sculptured; all pronotal setae well developed, with apices expanded; basantral plates absent. Metanotum longitudinally striate to hexagonally reticulate; mesopresternum divided or undivided; metathoracic sternopleural sutures present. Fore tarsus with tooth in both sexes. Fore wing parallel sided, duplicated cilia present. Pelta bell-shaped to triangular. Abdominal tergites II–VII with 2 pairs of sigmoid wing retaining setae; tergite IX with S1 and S2 setae well developed and expanded apically in both sexes. Tube shorter than head. Male with a broad pore plate on abdominal sternite VIII (Tyagi and Kumar, 2011).

Key to bicolorous species of *Liophloeothrips* in the world'

1. Mesopresternum complete, constricted at middle. *L. curtus*
- Mesopresternum incomplete, divided into two lateral triangles. 2.
2. Anteromarginal setae longer than anteroangular setae. *L. vichitravarna*
- Anteromarginal setae shorter or subequal to anteroangular setae. ... 3.
3. Tube yellow. *L. amoenus*
- Tube brown to dark brown. 4.
4. Abdomen completely brown; anteromarginals shorter than anteroangulars. *L. baharae* sp. n.
- Abdominal segments II and III clear yellow, IV yellowish-brown, rest dark brown; anteromarginals subequal to anteroangulars. *L. reperticus*

*The other species are unicolorous.

Liophloeothrips baharae Mirab-balou, sp. n. (figs 1–10)

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Material examined. Holotype ♀: **Iran**: Ilam Province, Manesht Mt. (33°41'33.36" N, 46°27'28.08" E, alt. 2650 m) at Zagros forests, on dead branche under oak tree, 10.04.2016 (coll. M. Mirab-balou) (ILAMU). Paratype: 1 ♀: (label as in the holotype) (ILAMU).

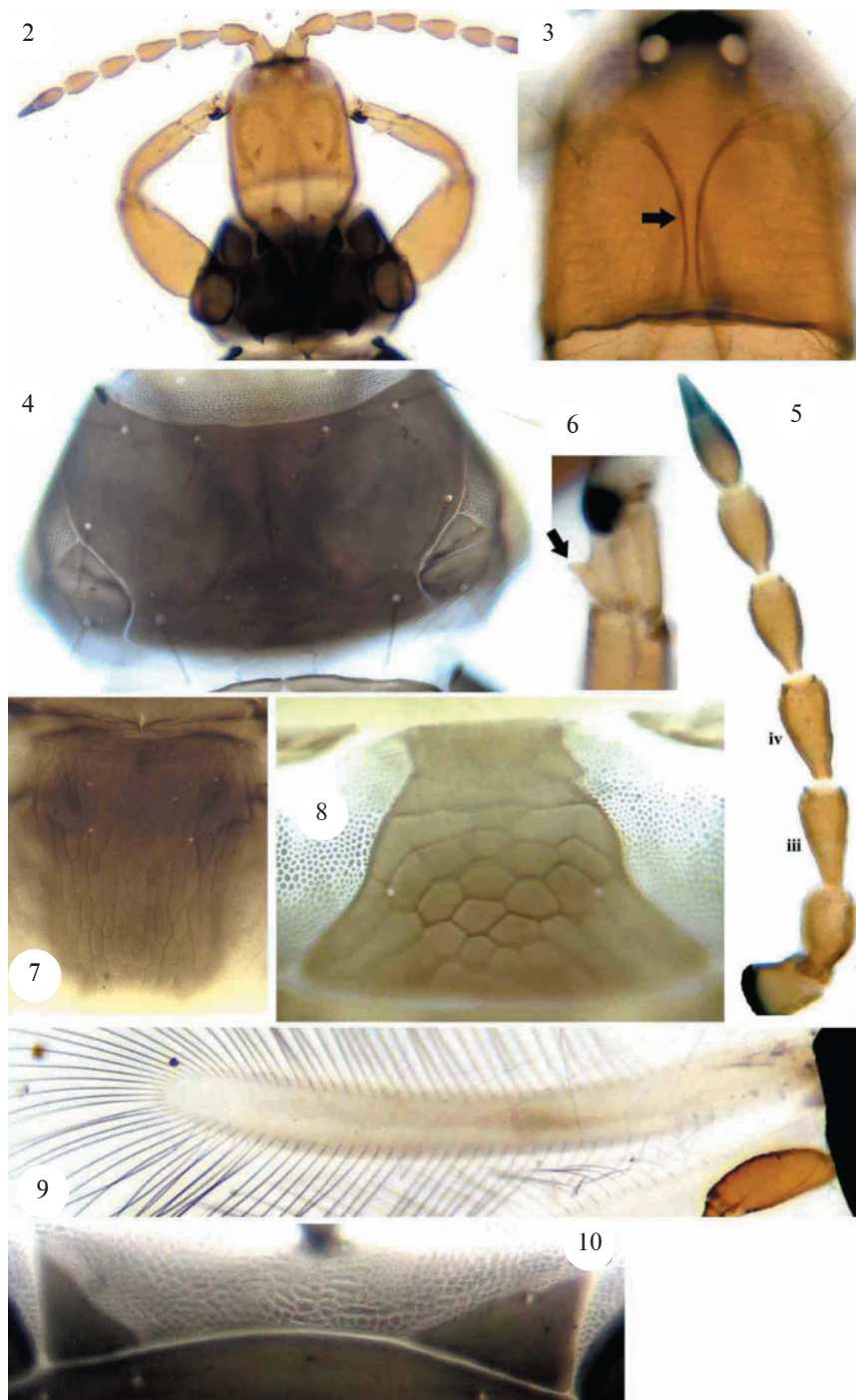


Fig. 1. *Liophloeothrips baharae* sp. n. (Holotype female).

Description. Female macroptera. Body bicoloured except yellow head, antennal segments I–VI, apical half of segment VII. All legs yellowish brown (fig. 1). Fore wing transparent with median light shade (fig. 9).

Head longer than broad; postocular setae well developed, with apices expanded, slightly shorter than eyes; maxillary stylets close together; maxillary bridge absent (figs 2, 3). Mouthcone narrowly pointed. Antenna 8-segmented (fig. 5) segment III with one outer sense cone, segment IV with one inner and two outer sense cones. Pronotum weakly sculptured; all pronotal setae well developed, with apices expanded (fig. 4); pronotal anteromarginals (*am*) shorter than anteroangulars (*aa*), epimerals (*ep*) longer than posteroangulars (*pa*); notopleural sutures complete; basantral plates absent. Metanotum with hexagonally

reticulate sculpture (fig. 7). Mesopraesternum with two lateral triangles (fig. 10); metathoracic sternopleural suture present. Fore wing parallel-sided, with 6 duplicated cilia; subbasal wing setae arranged in a one row. Fore tarsus with small tooth (fig. 6). Pelta bell-shaped (fig. 8).



Figs 2–10. *Liophloeothrips baharae* sp. n.: 2 — head and pronotum; 3 — head, showing maxillary stylets; 4 — pronotum; 5 — antenna; 6 — fore tarsus; 7 — metanotum; 8 — pelta; 9 — fore wing; 10 — mesopraesternum.

Abdominal tergites II–VII with 2 pairs of wing retaining setae; tergite IX with S1 and S2 setae well developed and expanded apically in both sexes. Tube shorter than head.

Male. Unknown.

Measurements (holotype female in microns). Total body length 1810. Head, length 168; eye length 57; postocular seta length 49. Pronotum, length 146; width 295; length of major setae — *aa* 44, *am* 37, *ml* 44, *pa* 47, *ep* 49. Length of segments I 40 (28), II 55 (30), III 62 (27), IV 61 (26), V 54 (23), VI 52(24), VII 47 (21), VIII 27 (10). Fore wing length 835, fore wing basal setae, length S1 31, S2 43, S3 51. Abdominal tergite IX setae S1 96, setae S2 88. Tube, length 144; width at base 50.

Eymology. This species is named after the author's daughter, Bahar Mirab-balou.

Remarks. This new species is similar to Indian bicolorous species *L. reperticus* Ananthakrishnan & Muraleedharan but is readily distinguished from the latter by the following characters states: antennal segments I–VI and apical half of segment VII yellowish brown (versus *reperticus* with segments I–IV yellowish, IV more yellowish-brown, V–VIII dark brown), all legs yellowish brown (versus *reperticus* with fore femora brown, mid and hind femora brown), abdomen completely brown but in *L. reperticus* abdominal segments II and III clear yellow, IV yellowish-brown, rest dark brown (Ananthakrishnan and Muraleedharan 1974); and *reperticus* with anteromarginals subequal to anteroangulars but anteroangulars is longer in this new species. Amongst European species, this new species is similar to *L. glaber* Priesner but its distinguished from the later by color of body (especially color of legs), and antennal segment III more than 2 times as long as wide.

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